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ABSTRACT

This report provides an analysis of the participation and performance of students with limited English proficiency (LEP) in the 1996, 1997, and 1998 Basic Standards of Reading and Math tests given to all 8th grade students in Minnesota annually. There is very limited availability of data on the performance of LEP students on these tests because they are exempt from such tests in all but six states. The few states that do report such data report it in a variety of noncomparable ways, making serious longitudinal studies difficult if not impossible. If the goal of the current educational reform movement is for all students to reach the standards set by the state in which they reside, more data about how LEP students are progressing toward this goal needs to be generated and made available. The purpose of this report is to begin this type of systematic and thorough examination of academic progress of LEP students. Minnesota initiated its statewide assessment in 1996 with the goal of including as many LEP students as possible. Thus far, the participation of LEP students in basic standards testing is high; patterns in the data are similar for "all students" and LEP students in many areas, but passing rates for LEP students are generally significantly lower, especially in reading; more than the 3 years of longitudinal data presented in this report are needed to draw more defensible conclusions. (KFT)

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Minnesota Report 19

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Overview

Since 1996, 8th grade students in Minnesota have been required to take minimum competency tests in reading and math that must be passed in order to receive a high school diploma. The Basic Standards Tests in Reading, Math, and the recently added writing section, are one part of Minnesota's standards-based system of accountability. This report provides an analysis of the participation and performance of students with limited English proficiency (LEP) in the 1996, 1997, and 1998 Basic Standards Tests of Reading and Math.

In the past, LEP students often were excluded from large-scale assessments (Abedi, Lord, & Hofstetter, 1998; National Academy of Education, 1993). As a result, there is only a limited amount of data on LEP students' participation and performance in these types of assessments. The data that do exist come primarily from recent analyses for the U.S. data collection program, the National Assessment of Educational Progress (NAEP) (see National Center for Education Statistics [NCES], 1997a and 1997b), and a few states, but not necessarily those with the largest LEP student populations. A review of state education reports collected and analyzed by the National Center on Educational Outcomes (Ysseldyke, Thurlow, Langenfeld, Nelson, Teelucksingh, & Seyfarth, 1998) indicated that only six states reported on the participation of LEP students in state assessments, and seven different states reported on the performance of LEP students (see Liu & Thurlow, 1999). None of these states were the same ones. Further, the states presented their data in a variety of noncomparable ways.

If the goal of the current educational reform movement is for all students to reach the standards set by the state in which they live (Abedi et al., 1998), more data need to be made available about how LEP students are progressing towards those goals. Rivera and Vincent (1996) highlight the need for accurate data on the achievement of LEP students:

> Through the year 2000, the estimated growth rate for LEP students is more than

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> twice that of children in the general population (CCSSO, 1990). These factors make it critical to accurately monitor the academic progress of LEP students through statewide assessment programs (p.1).

The purpose of this report is to begin this type of systematic and thorough examination of the academic progress of LEP students. Minnesota initiated its statewide assessment in 1996, with the goal of including as many LEP students as possible. In this report, three years of data from Minnesota's statewide assessment are examined.

Minnesota's Basic Standards Tests

Minnesota's Basic Standards Tests (BSTs) in Reading and Math were administered statewide for the first time in 1996 to eighth graders (the class of 2000) to determine eligibility for graduation. In that year, participation was optional for districts. In 1997, participation in some form of standardized testing to determine eligibility for graduation was required, but districts could choose to use the BSTs, commercially developed standardized achievement tests that could be equated to the BSTs, or district-developed tests that could be equated to the BSTs. In 1998, the legislature required participation in the BSTs for all districts for determining eligibility for graduation and for school accountability purposes. In addition to reading and math, a writing test was required of tenth graders in 1999. Students in the class of 2002 (ninth graders in 1998-99) are required to complete additional classroom-based standards in order to receive a high school diploma. Sample reading and math items can be found at the Minnesota Department of Children, Families and Learning Web site, http://cfl.state.mn.us/Grad.

There has been debate among researchers and educators over the appropriateness of disaggregating assessment data so that the participation and achievement of these students could be examined apart from the data on their native-English speaking peers. Some experts think that disaggregating LEP students' data reinforces the belief that the students are different and separate from their peers. Members of the Minnesota Assessment Project have chosen to disaggregate Basic Standards Test data for these students in the belief that the data will encourage educators and policymakers to examine appropriate assessment practices that are inclusive of LEP students, and in turn, to examine the services provided for these students and the instructional practices used for them. Since few other states publish data on the participation and performance of LEP students in statewide assessments, the purpose of this report is to add to the information that currently exists.

Method

The Minnesota Department of Children, Families and Learning (CFL) collected the data compiled for this report through the Minnesota Automated Reporting Student System (MARSS). Minnesota Assessment Project researchers ran descriptive statistical analyses using the SPSS Information Analysis System.

Fields in the MARSS database allow for an examination of only those students who are both limited English proficient and who receive ESL or bilingual services. This is a subset of all those students who are classified as LEP because some students may not receive services

even though they are eligible for them (most often because parents choose not to have students access the services that are available). In this report when the term "LEP" is used, it should be understood to mean those students who are LEP and who receive ESL or bilingual services. The enrollment numbers are based on Fall counts and other reports based on other counts may produce slightly different results.

Participation and Performance

The class of 2000 (the majority of whom were 8th graders in 1996) is the first group of Minnesota students required to pass BSTs in reading and math in order to graduate from high school. A minimum of 70% of the items in each test must be answered correctly in order for students in this cohort to pass. This percentage, often referred to as a "cut score," was raised to 75% for 8th graders in the class of 2001 (the majority of whom were 8th graders in 1997). The cut scores remained at 75% for the class of 2002 (the majority of whom were 8th graders in 1998). Even though participation in the 1996 administration of the BSTs was voluntary for school districts, about 80% of 8th grade students overall took the test in that year. Table 1 presents participation data for both the total group of 8th grade students taking the test (including LEP and Special Education students) from 1996-98 and participation for just the LEP 8th graders in each year.

Table 1. 1996-98 8th Grade BST Participation for All Students and for LEP Students Receiving ESL/Bilingual Education

	All 8th Graders in 1996	LEP 8th Graders in 1996	All 8th Graders in 1997	LEP 8th Graders in 1997	All 8th Graders in 1998	LEP 8th Graders in 1998
Total Number of Students During Fall	65,647	997	65,934	753	66,526	1,784
Number Tested in Reading	51,780	657	50,386	852	64,401	1,574
Percent Tested in Reading	79%	66%	76%	<100%*	97%	88%
Number Tested in Math	53,606	693	51,929	876	64,396	1,580
Percent Tested in Math	82%	70%	79%	<100%*	97%	89%

* Enrollment increased significantly between October 1st when students are counted for enrollment, and BST administration the following spring.

Participation of students receiving ESL or Bilingual services the first year of test administration was lower, with 66% taking reading and 70% taking math. However, participation rates for LEP students did rise significantly over time. The data also show that for both "all students" and LEP students, participation in the reading and math tests was similar. In both groups only 1%-4% more students took the math test than took the reading test.

In general, approximately 10% more of the "all students" group participated in the BST testing each year than of the LEP student group. The testing guidelines developed by the Minnesota Department of Children, Families and Learning allowed LEP students who had been in the country less than three years in 1997 to be temporarily exempted from testing (see Appendix A for complete exemption guidelines). In 1998, the guidelines were changed to a one year temporary exemption when the test also began to be used for accountability purposes. Given these testing guidelines, it would be logical to expect that a greater percentage of LEP students were excluded from testing in 1997 than in 1998. In fact, the opposite situation is reflected in the tables. In 1997, LEP student participation in both math and reading was more than 100% and in 1998 participation rates were about 10% lower. This could be due to any one, or a combination, of the following factors: (1) large metropolitan districts with the largest concentration of LEP students in the state continued to participate in the BSTs while districts with a small concentration of LEP students chose to give other tests, (2) immigration to and migration within the United States in the fall of 1997 resulted in an influx of LEP students after the fall count of students was made and prior to the administration of the BSTs the following spring, and (3) there was an error in data collection and the percentages reflected are not correct. In 1997 all students who had been in the country three years or more were required to participate in the BSTs if their resident district chose to administer the BSTs.

It is important not to make comparisons across testing years with these data, since the overall number of LEP students was much lower in 1996 and 1997 than in 1998 (see Table 1). The increase of students may affect participation and passing rates with a larger number of students actually being tested. The number of students identified as LEP in Fall 1997 was more than double the number identified in the previous year (1,784 vs. 753). Anecdotal information from a large district with a large population of LEP students suggests that some districts might now be identifying more students as limited English proficient than in the past because of the high number of non-English language background (NELB) students having difficulty with the Basic Standards Tests.

General Performance

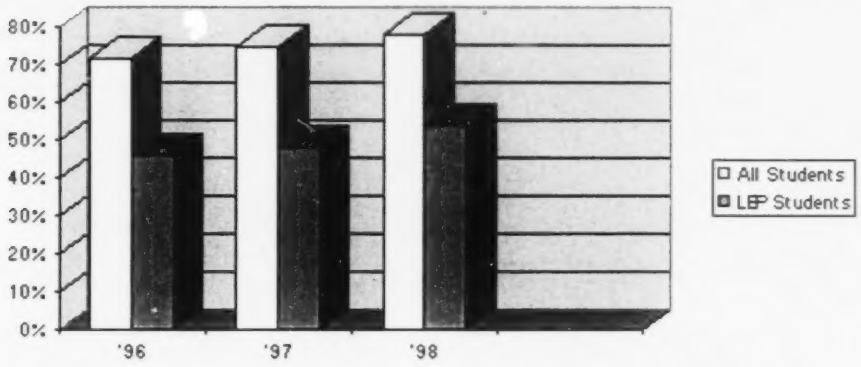
Reading

While participation rates for LEP students are high, the performance of these students is

low. Figure 1 shows mean percentages of reading items correct for LEP students and for "all students."

Each year, the mean percentage of reading items correct was consistently about 25% higher for the "all student" group than for the LEP students. Table 2 shows the mean percentage of items correct on the reading test in more detail.

Figure 1. Mean Percentage of Reading Items Correct on the 1996-98 BSTs*



* LEP students here includes only those receiving ESL/Bilingual services.

Table 2. 1996-98 Mean BST Reading Performance

	All 8th Graders in 1996	LEP 8th Graders in 1996	All 8th Graders in 1997	LEP 8th Graders in 1997	All 8th Graders in 1998	LEP 8th Graders in 1998
Number Tested	51,780	657	50,386	852	64,401	1,574
Mean Percent Correct	72%	46%	75%	48%	78%	54%

For LEP students taking reading, the mean percentage of items correct ranged from 46% in 1996 to 54% in 1998 with a 2%-6% increase each year. In comparison, the mean percentage of items correct in reading for the "all student" group ranged from 72% in 1996 to 78% in 1998 and showed a 3% increase each year. The difference between the reading means of the two groups ranged from 24% to 27% higher for the "all student" group than for the LEP students.

Table 3 shows the passing rates of the total 8th grade student group and the 8th grade LEP

students for 1996-98 in reading.

Table 3. 1996-98 Percentages Passing/Not Passing BST Reading

	All 8th Graders in 1996	LEP 8th Graders in 1996	All 8th Graders in 1997	LEP 8th Graders in 1997	All 8th Graders in 1998	LEP 8th Graders in 1998
Number Tested	51,780	657	50,386	852	64,401	1,574
Number Passing	33,121	66	29,760	72	43,811	252
Percent Passing	64%	10%	59%	8%	68%	16%
Number Not Passing	18,659	591	20,626	780	20,590	1,322
Percent Not Passing	36%	90%	41%	92%	32%	84%

During the years 1996-98, between 8% and 16% of LEP students passed reading. In comparison, 59% to 68% of all 8th graders passed reading; a difference of roughly 50% between the two groups. Because students with limited English proficiency, by definition, are in the process of acquiring the academic English that is needed to be successful on grade level standardized tests given in English, the low percentages of LEP students passing the BSTs are not unexpected. The percentage of LEP students passing the test was lower in 1997 than in 1996, but the total number of LEP students in 8th grade and the total number of LEP students passing had increased by nearly 200 from the previous year. Between 1997 and 1998 the number of 8th grade LEP students identified nearly doubled and the number of LEP students passing reading as 8th graders more than doubled, so again, the percentages of students passing are not comparable across years.

While it is encouraging that a growing number of LEP students are passing the tests when their English is still limited, the table shows that between 85% and 90% of LEP students did not pass the BST reading test. In comparison, 32-41% of all 8th graders did not pass the reading test.

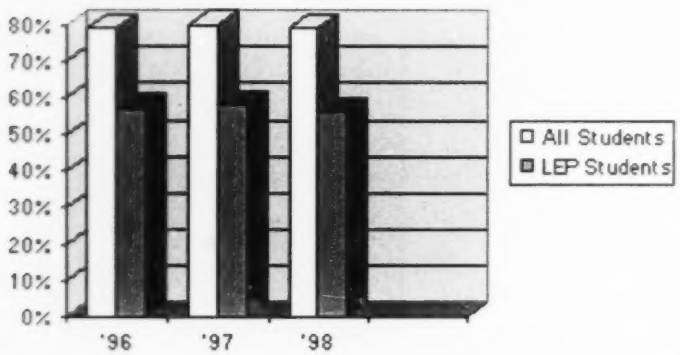
Math

Figure 2 shows mean percentage of math items correct for LEP students and for "all

students."

Each year, the mean percentage of math items correct was about 22% higher for the "all student" group than for the LEP students. The difference between the "all student" means and the LEP student means in math was similar to the differences between the two groups in reading. Table 4 shows the mean percentage of math items correct in more detail.

Figure 2. Mean Percentage of Math Items



*LEP students here includes only those receiving ESL/Bilingual services.

Table 4. 1996-98 Mean BST Math Performance

	All 8th Graders in 1996	LEP 8th Graders in 1996	All 8th Graders in 1997	LEP 8th Graders in 1997	All 8th Graders in 1998	LEP 8th Graders in 1998
Number Tested	53,606	693	51,929	876	64,396	1,580
Mean Percent Correct	79%	57%	80%	58%	79%	56%

In math, the mean percentage of items correct for the LEP students ranged from 56% to 58% with a 1% to 2% change in means each year. In comparison, the mean percentage of items correct in math for the "all student" group ranged from 79% in 1996 and 1998 to 80% in 1997. The "all students" group also showed a 1% change in the math mean each year. The difference between the math means of the two groups was between 22% and 23% higher for the "all student" group.

Table 5 shows the percent of the total 8th grade student group and the 8th grade LEP students from 1996-98 who passed the BST math test.

Table 5. 1996-98 BST Math Passing Rates

	All 8th Graders in 1996	LEP 8th Graders in 1996	All 8th Graders in 1997	LEP 8th Graders in 1997	All 8th Graders in 1998	LEP 8th Graders in 1998
Number Tested	53,606	693	51,929	876	64,396	1,580
Number Passing	41,462	172	36,092	184	45,489	362
Percent Passing	77%	25%	69%	21%	71%	23%
Number Not Passing	12,144	521	15,837	692	18,907	1,218
Percent Not Passing	22%	75%	31%	79%	29%	77%

From 1996 to 1998, between 21% to 25% of LEP students passed the math portion of the BSTs. In comparison, 69% to 77% of all 8th graders passed math; again, a difference of roughly 50% between the two groups. Attention should be paid to the fact that the total number of 8th grade LEP students identified in a given year and the number of LEP students passing the math test is increasing, even though the percentages shown do not reflect that increase. Roughly 75% to 80% of 8th grade LEP students in a given year did not pass the BST math test.

Performance with Accommodations

A list of accommodations and modifications that are allowed for LEP students taking the Basic Standards Tests is found in Table 6.

Table 6. Accommodations and Modifications Allowed for LEP Students

Accommodation	Test
1. Audiocassettes in English	Math
2. Script of the audiocassette for testing personnel to read aloud	Math
3. Clarification or translation of directions	Math, Reading
4. Extended Time	Math, Reading
5. Individual or small group administration	Math, Reading
6. Writing directly in test booklet	Math, Reading
7. Short segment test books	Math, Reading
8. Oral interpreations	Math
9. Written translations	Math

Table 7 shows the use of accommodations by LEP students in 1997, the only year of the three years (1996-98) for which BST accommodations information is currently available. The data indicate that equal numbers of LEP students used accommodations on the math and reading test.

Table 7. Use of Accommodations by LEP Students Taking the 1997 BSTs

	1997 Reading Test		1997 Math Test	
	Students using Accommodation	Students Not using Accommodation	Students Using Accommodation	Students Not Using Accommodation
Number	100	752	102	774
Percent	12%	88%	12%	88%
Mean Percent of Items Correct	45%	48%*	58%	58%*
Percent Passing BSTs	2%	8%*	83%	21%*

* These percentages actually reflect the percent of all LEP students taking the test.

The mean percentage of items correct for LEP students using accommodations on reading was 45%, compared to 48% for all 8th grade LEP students tested. In math the mean percentage of items correct was 58% for both the accommodated and the total group of LEP students tested. Eighty-three percent of LEP students who used accommodations on

the math test passed, compared to 2% of LEP students who used accommodations on the reading test. These data again speak to the relative difficulty of the reading test for LEP students.

Discussion

The data presented in this report are some of the first data presented nationally on the performance of LEP students on a statewide assessment. Because the numbers of students classified as LEP changed over time, percentages are often based on quite different group sizes. Furthermore, in some instances (such as the collection of data on the use of accommodations), we know that the data are likely to underestimate actual use. It is important that information provided by the analyses presented here be used for system accountability and to improve the instruction of LEP students, not to blame these students nor their programs for low performance levels. It is extremely important to continue to examine the participation and performance of LEP students over time and to look for improvements resulting from specific types of instructional programs. Particularly important will be studies that look at improvements in the performance of individual students as they learn English and subject matter content.

With these cautions in mind, the following points can be made:

- The participation of LEP students in Basic Standards Testing is high; the number of LEP students participating in the test more than doubled from 657 in 1996 reading and 693 in 1996 math to 1,574 in 1998 reading and 1,580 in 1998 math.
- Patterns in the data are similar for both LEP and "all students" in many instances, but the number of LEP students passing and the performance levels of LEP students are significantly lower. Lower overall performance levels are not unexpected for students who are still learning academic English.
- If 75% or more of 8th grade LEP students do not pass either the reading or the math BSTs on their first attempt, there is clearly a need for longitudinal reports that include data on students who are not first time test takers. More than three years of testing data would be needed to determine trends in the data.

Reading is consistently a more difficult test for LEP students than math, but at the same time, fewer accommodations and modifications are allowed for the reading test than for the math test. Roughly 10% of LEP students used accommodations in reading or in math in 1997 and more of the accommodated students passed math than reading. However, anecdotal information suggests that because BST testing was new for many schools in 1997 and because it was time consuming to record accommodations data for each student, the number of students reported using accommodations for reading and math may not be accurate. The higher passing rate for accommodated students taking math may be due to characteristics of the students receiving accommodations on each test and to the types of accommodations offered. It is to be expected that the LEP students who used accommodations on the reading test were those with lower English reading abilities and

therefore would have a lower mean percentage of items correct. One difference that may contribute to the larger percent of accommodated students passing math is that the math test can be translated into the students' dominant language while the reading test can not.

Further investigation is needed to determine which accommodations are offered to individual students in a given testing year and the impact of those specific accommodations on LEP students' performance. In order to do this kind of investigation, more detailed and accurate data on accommodations use need to be kept at the individual student level. In response to this concern the Department of Children, Families and Learning designed an accommodations form for the 1999 Basic Standards Tests that BST testing personnel in school districts will complete, which will be submitted for analysis with a student's answer sheet. Continued collection of data, and refinements in the data collected, will help the field to better understand the performance of LEP students and eventually be able to examine the effects of various accommodations and instructional programs on their performance.

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Appendix A

Exemptions for Students with Limited English Proficiency

The following exemptions may be offered to limited English proficiency (LEP) students taking the Minnesota Comprehensive Assessments and the Basic Standards Tests.

The 1997 legislature mandated a system of statewide testing and accountability (M.S. 121.1113). All students enrolled in grades three, five, and eight are tested with a single statewide test for the purpose of system accountability.

Students with limited English proficiency must participate in statewide testing by taking the Minnesota Comprehensive Assessments in grades three and five and the Basic Standards tests in grade eight **unless they have been in the United States less than 12 months.**

Temporary exemptions from the Basic Standards tests may be granted to students in grades 9–12 if they have been enrolled for three or fewer years in a school where the primary language of instruction is English. Exemptions must be reviewed annually.

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